

# Welcome, Cybernauts!

At the Internet 1996 World Exposition, virtual visitors can navigate through a digital global village

By JULIE K.L. DAM

**E**VER SINCE THEY WERE FIRST STAGED in 19th century Europe, world's fairs have enabled people from around the globe to visit wondrous pavilions where they can discover distant lands and new technologies. The 1996 world's fair is no exception, but it also has a decidedly eve-of-the-21st-century twist: the whole event happens in cyberspace.

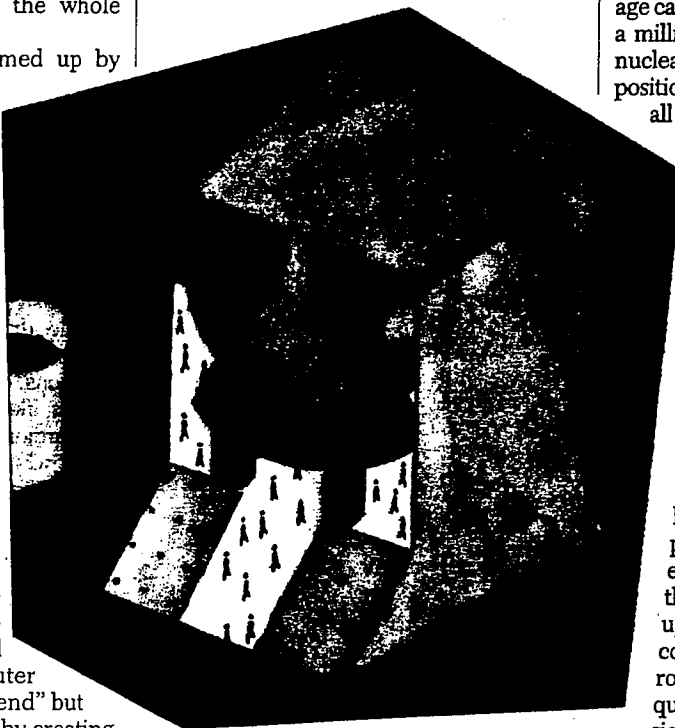
A nonprofit project dreamed up by Americans Carl Malamud, a computer consultant, and Vinton Cerf, an Internet pioneer and telecommunications-company vice president, the Internet 1996 World Exposition is a digital work in progress, a multichambered forum that cybernauts can help build and renovate throughout the year—and perhaps long after the fair's official close in December.

While high-tech pavilions set up by sponsoring corporations are featured prominently, as in real fairs, this virtual exposition is closer in spirit and reality to a vast, bustling bazaar, a marketplace for the talents and offerings of thousands of individuals and small groups. Anyone with a computer and a modem can not only "attend" but also participate as an exhibitor by creating an individual multimedia Website. Visitors can easily navigate from an introduction to Luddism to an exhibition on the wildlife of the Galapagos Islands and then to a virtual Bengali religious festival.

All the linked sites are supported by Central Park, a global infrastructure of six computer servers—expected to triple to 18 by year's end—located in such cities as Tokyo, Amsterdam, Adelaide and Washington. In addition, Japan boasts "public-access points"—from a group of cybercafés in Tokyo's hip Harajuku area to computer stations at the headquarters of telecommunications giant NTT—where people can walk off the streets and into the Internet. Amsterdam has a similar setup; more are planned for South Korea and Taiwan.

Getting the fair up and running was by

no means easy. Malamud, 36, spent the past year shuttling among 30 countries, lobbying companies that initially dismissed the project as unwieldy and unworkable. While some nations immediately supported the idea, others completely missed the point of Malamud's vision: to make the fair a public-works project that focuses on what the Internet can offer expert or novice.



Once grass-roots groups started backing the project, though, businesses were not far behind. By donating equipment and services, these companies will gain access to millions of potential consumers eager to see the firms' latest technologies.

Japanese corporations were quick to seize the chance of putting their technological prowess on show. Sony, for example, focuses its pavilion on its Cyber Passage software, which can combine three-dimensional images with sound and motion. The technology behind Cyber Passage—similar to that used in the PlayStation, Sony's successful new 32-bit video-game player—may have applications for distributing and playing 3-D games over the Net.

Since the exposition's Jan. 1 launch, as many as 40,000 visitors each day from

more than 40 countries have tried the major Websites (the main home page is at <http://park.org>). Most virtual visitors log on from the U.S. and Japan, but the United Arab Emirates, Sweden, Singapore and Estonia have been represented. Comments logged in the fair's guest book are overwhelmingly positive. "Wow, the world is shrinking," wrote a visitor from the Netherlands.

Since their initial hesitancy, the major sponsors—primarily telecommunications and software companies—have become firm believers. Beyond the diversity of content and international scope, the fair is a technological marvel. A total of \$100 million has been contributed toward producing the exposition, \$25 million for computer equipment alone. The central servers have a storage capacity of a terabyte—the equivalent of a million floppy disks. Says Rob Blokzijl, a nuclear physicist and a member of the exposition's executive committee: "To make

all those machines work happily together, you need the Internet." But since the existing international capabilities of the Internet were inadequate, he says, "we built a sort of backstage of our own."

And that backstage—a high-speed telecommunications pipeline—is the exposition's true showpiece. Just as the 1889 Paris Exposition gave rise to the Eiffel Tower, this world's fair will leave behind a structure that embodies its vision of the future: a transoceanic "railroad" of high-speed fiber-optic links. MCI and the Japanese telephone company KDD donated an estimated \$20 million to the cost of the 45-megabit-per-second data hook-up. Laid down across the Pacific to connect the U.S. with Asia and Europe, the pipeline adds speed and quality to audio and video transmission: moving from one screen to the

next, which may take minutes on a phone circuit, can be done as quickly as switching TV channels with a remote control.

The fastest international link ever installed, this pipeline could be the first step toward laying a permanent network that will eventually hardwire every nation in the world into the Internet. The organizers hope that the infrastructure—and awareness—nurtured by this exposition will launch a boom in Net use. "By the end of 1996," says organizer Cerf, "my hope and expectation is that people will discover there is such a strong business need for it that we'll keep [the links] in place." Malamud puts it in simpler terms: "I want this to be a fairground that goes on forever."

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